

DOCKET NO. SC11804TS

REMARKS

In an Office Action mailed February 17, 2004, claims 1-6 and 8-24 were pending and all claims were rejected. The rejection was made final. In response, Applicants have amended claims 1, 8-10, 18, 21 and 23. Applicants request the allowance of claims 1-6 and 8-24, thereby placing the application in condition for allowance.

Claim Rejections

Claims 8 and 18 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Rejection of Claims 8 and 18 under 35 U.S.C 112, second paragraph

Claim 8 was rejected for reciting a first filter for providing a first filter output. Base claim 1 recites filter means for providing a first filter output. To remove any ambiguity, dependent claim 8 is herein amended to recite a first low pass filter for providing a first low pass filter output and a second low pass filter for providing a second low pass filter output. Thus the output signals of the two recited low pass filters are clearly distinguishable from the first filter output of the recited filter means of claim 1. Applicants request the withdrawal of the rejection of claim 8 under 35 U.S.C. 112, second paragraph.

Claim 18 was rejected for the language associated with the recited pilot component and whether the pilot component has a reduced frequency in the recited intermediate signal or the input signal. Claim 18 is herein amended to make clear that the pilot component in the recited intermediate signal has a reduced frequency

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from the pilot component in the input signal. Therefore, Applicants request the withdrawal of the rejection of claim 18 under 35 U.S.C. 112, second paragraph.

Additionally, amendment to claim 23 is herein requested to improve the grammatical syntax of the claim by adding the word "of" immediately following the word "step". Approval of this matter related to form is requested.

The requested changes reduce the issues for consideration, and Applicants request the timely entrance of this amendment.

Rejection of Claims 1-6, 8-13, 16-19 and 21-24 under 35 U.S.C 103(a)

Claims 1-6, 8-13, 16-19 and 21-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Vogt et al. (U.S. Patent 5,442,709) in view of Reich (U.S. Patent 4,827,515), Gottfried et al. (U.S. Patent 5,671,286), and Short (U.S. Patent 5,068,896). In response, independent claims 1, 18 and 21 are herein amended to particularly recite that the dynamically controlled filters are separately controlled filters for separately varying bandwidth of the output signal containing a difference of the left channel information and the output signal containing a sum of the left channel information and the right channel information. Amended claims 1 and 18 recite that the bandwidth of the filter processing the output signal containing a difference of the left channel information and the right channel information is varied prior to varying the bandwidth of the filter processing the output signal containing a sum of the left channel information and the right channel information. Amended claim 21 recites that bandwidth of the low pass filter that filters the output signal containing a sum of the left channel information and the right channel information is different from bandwidth of the low pass filter that filters the output signal containing a difference of the left channel information and the right channel information.

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Short was cited for the proposition of separately filtering the sum (L+R) and difference (L-R) signals in an FM stereo decoder using dynamic filters. However, as illustrated in FIG. 2 of Short, a same control signal 26 is used to control each filter. As stated in Short at Col. 3, lines 48-55, the control signal generator 22 controls the cutoff frequencies of the all-pass filter 31 and the low pass filter 21 to be the same so that both filters have the same Q and the phase shift introduced by both filters is substantially the same to maintain good stereo separation. In contrast, as taught by Applicants at page 16, lines 2-4, "Low pass filters 410 and 430 each has a dynamic bandwidth that varies depending upon the received signal condition." Applicants' separate bandwidth filter control is taught to be needed at page 16, lines 10-12 because the filter processing the (L-R) signal needs to be adjusted first because the (L-R) is more easily corrupted and has been shifted from high frequency. As a result, as taught at page 17, lines 4-5, different coefficients are used by the low pass filters processing the (L+R) and the (L-R) signals to implement different bandwidths. Short does not teach or suggest such dynamic bandwidth control of filters when combining (L-R) and (L+R) components to generate a left channel and a right channel signal. No other reference of record teaches or suggests the recited decoder and method of claims 1, 18 and 21. Therefore, Applicants respectfully request the entrance of this amendment to place the application in condition for allowance.

Rejection of Claims 14, 15, 19 and 20 under 35 U.S.C 103(a)

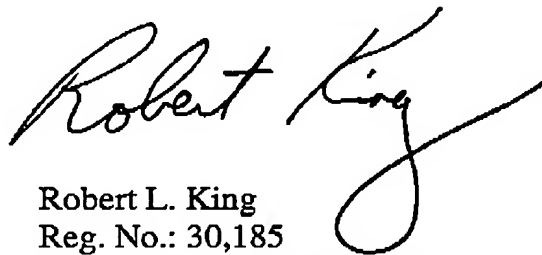
Claims 14, 15, 19 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Vogt et al. (U.S. Patent 5,442,709) in view of Reich (U.S. Patent 4,827,515), Gottfried et al. (U.S. Patent 5,671,286) and Short (U.S. Patent 5,068,896), and further in view of Patel et al. (U.S. Patent 5,479,449) and Whikehart et al. (U.S. Patent 5,936,438).

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The addition of Patel and Whikehart to the basis of the rejection does not teach or suggest the claim recitals described above in connection with the amended base claims. For that reason, dependent claims 14, 15, 19 and 20, are allowable when considered in light of the amended base claims. Applicants respectfully request the withdrawal of the rejection of this rejection basis.

In view of the remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. No amendment made herein is related to the statutory requirements of patentability unless expressly stated herein. Further, no amendment herein is made for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references. In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is requested to telephone the undersigned at (512) 996-6839.

Respectfully submitted,



Robert L. King
Reg. No.: 30,185
Phone No.: 512-996-6839
Fax No.: 512-996-6853

SEND CORRESPONDENCE TO:

Motorola, Inc.
Law Department
Customer Number: 23125